

# Chemicals and synthetic DNA

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An abbreviated version of this protocol was published in Science Signaling in Sep 2020

High-resolution structures of the SARS-CoV-2 2'-O-methyltransferase reveal strategies for structure-based inhibitor design

DOI: 10.1126/scisignal.abe1202

## Detailed protocol

Hello Janina,

The manual edits are just a second inspection after codon optimization (Gensmart) to identify and correct possible artificial ribosome binding sites produced by the software. You can request our plasmids from BEI. Also, please find below the optimized sequences used for this study.

Hope this is helpful.

All the best,  
Monica

NSP10 sequence+ **Start** and **Stop** codons

**ATGGCGGGAAACGCAACTGAGGTACCCGCTAATTCGACCGTCTGAGCTTCTGCGCGTTTGCAAGTATGCGGCTAAAGCGTATAAGGACTACTTGGCTTCCGGTGGTCAGCCGATCACGA**  
TACGTGCAAATCCCGACCACTGTGCAATGATCCGGTTGGTTTCACCTGAAGAACCCGTGTGCACTGTCTGGTATG TGG AAA GGC TATGG  
TTGTTCTGTGACCAACTGCGTGAACCGATGTTACAGTAA

Nsp16 sequence+ **Start** and **Stop** codons

**ATGCAAGTCAGGCATGGCAACCCGAGTAGCTATGCCGAATCTGTACAAGATGCAGCGTATGCTGTTGGAAAAATGTGATCTGCAAACTACGGCGA**  
CTCTGCTACTCTCCAAAGGGCATTATGATGAACGTCGCCAAATACACCCAGCTTTGCCAATATCTGAACACCTTGACCTCGCAGTGCCGTACA  
ACATGCGTGTATCCACTTTGGTGCGGGTAGCGACAAAGCGTTGCTCCGGGTACGGCTGTGTTGCGCCAGTGGCTGCCGACCGGTACATTGCTG  
GTGGATTCTGACCTGAATGATTTTGTGAGCGACGACGATTCCACCTTAATCGGCGACTGTGCGACCGTTACACCGCGAATAAATGGGATTGAT  
TATCAGCGACATGTATGATCCGAAGACCAAGAACGTGACGAAAGAGAACGACTCC AAA GAG GGCTTCTTACCTATATCTGCGGTTTTATCCAGC  
AGAACTGGCACTGGGCGGCTCCGTGGCGATTAATAACCCGAACATTCTGGAATGCGGATCTGTACAACTTATGGGTCAATTCGCATGGTGG  
ACCGCGTTCGTTACCAATGTGAACGCCAGCAGCTCAGAAGCTTTCCTGATCGGGTGCAATTACCTGGGTAACCGCGTGAGCAGATCGATGGTTA  
TGTTATGCACGCGAACTACATTTTTGGCGTAATACGAACCCGATTCACTGTGAGCTATAGCTTGTGATATGAGCAAGTCCCGCTGAAGC  
TGCGTGGTACTGCGGTAATGTCC CTT AAA GAG GGC CAAATTAACGACATGATTCTGAGCTTGTGAGTAAGGGCCGTCTGATCATCCGCGAAAAAC  
AACCGCGTTGTTATTAGCTCGGACGTCCTGGTTAATAACTAA

**How to cite:** (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

- Rosas-Lemus, M. (2020). Chemicals and synthetic DNA. Bio-protocol Preprint. [bio-protocol.org/prep541](https://bio-protocol.org/prep541).
- Rosas-Lemus, M., Minasov, G., Shuvalova, L., Inniss, N. L., Kiryukhina, O., Brunzelle, J. and Satchell, K. J. F. (2020). High-resolution structures of the SARS-CoV-2 2'-O-methyltransferase reveal strategies for structure-based inhibitor design. Science Signaling 13(651). DOI: [10.1126/scisignal.abe1202](https://doi.org/10.1126/scisignal.abe1202)

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